

Page 1, delete the whole paragraph starting with line 22 and replace it with the following new paragraph.

A3  
A substrate for a semiconductor device needs certain characteristics such as stiffness, impact resistance, etc. for keeping to maintain the function of the device. It is thought that the substrate needs a thickness of 100  $\mu\text{m}$  or larger in order to keep the characteristic when the substrate is formed of metal nitride.

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1A4  
Page 2, delete the whole paragraph starting with line 12 and replace it with the following new paragraph.

One of the problems to be solved in the sapphire substrate is as follows. That is, the sapphire substrate is transparent, so that light of the light-emitting device to be originally taken out from an upper face of the device passes through the sapphire substrate. Hence, light emitted from the light-emitting device cannot be used effectively.

Please delete the paragraph bridging pages 2 and 3 and replace it with the following new paragraph.

A5  
CWA  
On the other hand, substituting an Si (silicon) substrate for the sapphire substrate may be thought of. According to the inventors' examination, it was, however, very difficult to grow a GaN semiconductor layer on the Si substrate. One cause of the difficulty is the difference in thermal expansibility between Si and the GaN semiconductor. The linear expansion coefficient of Si is  $4.7 \times 10^{-6}/\text{K}$  whereas the linear expansion coefficient of GaN is  $5.59 \times 10^{-6}/\text{K}$ . The former is smaller than the latter. Accordingly, if heating is performed when the GaN semiconductor layer is grown, the device is deformed so that the Si substrate is expanded while the GaN semiconductor layer side is contracted relatively. On this